Third United Nations International Conference on the Peaceful Uses of Atomic Energy

A/CONF.28/A/308
USSR
February 1964
Original: RUSSIAN

Confidential until official release during Conference

Abstract

THE BELOYARSK NUCLEAR POWER STATION FIRST UNIT PILOT OPERATION

A.N.Grigoryants, P.I.Aleschenkov,
L.A.Kochetkov, Nevskiy et al.

Pilot operation of the first unit of the Beloyarsk nuclear power station is described. The first unit comprises a uranium-graphite tube type power reactor, steam generator which produces saturated steam and high pressure turbogenerator operating on nuclear superheat steam.

The main feature of the first unit start-up is that the start-up and in particular reactor heating from a cold state is obrained without a heat external source using only reactor inherent heat of uranium-235 nuclear fission.

This feature makes it somewhat difficult to put the reactor into operation but at the same time this is absolutely necessary for a superheat nuclear power station.

Research and experimental work before and during reactor pilot operation is discussed, as well as simultaneous checking-up of a power plant equipment, operation at loads, the steady-state unit early stage operation and setting-up of separate systems, control and measuring devices and automation instruments are pointed out.

Translation provided by courtesy of the submitting Government